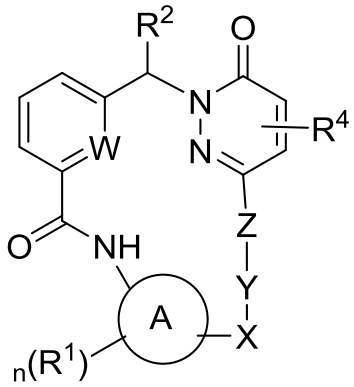
Claims

We claim:

1. A compound of formula **I**,



I

or a pharmaceutically acceptable salt thereof, wherein:

Ring A is a 5-6 membered monocyclic heteroaryl ring having 1-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur; which is optionally substituted;

X is absent, -C(O)-, -CO_2-, -C(O)N(R)-, -OC(O)N(R)-, -NRC(O)-, -NRC(O)N(R)-, -$(CRR)_m$C(O)-, -$(CRR)_m$$CO_2$-, -$(CRR)_m$C(O)N(R)-, -$(CRR)_m$OC(O)N(R)-, -$(CRR)_m$NRC(O)-, or -$(CRR)_m$NRC(O)N(R)-;

Y is an optionally substituted C_{1-6} aliphatic;

Z is -o-, a divalent C_{3-10} aryl, a divalent 3-8 membered saturated or partially unsaturated carbocyclic ring, a divalent 3-7 membered heterocylic ring having 1-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur, or a divalent 5-6 membered monocyclic heteroaryl ring having 1-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur; each of which is optionally substituted -O-;

W is CR or N;

each R is independently hydrogen, C_{1-6} aliphatic, C_{3-10} aryl, a 3-8 membered saturated or partially unsaturated carbocyclic ring, a 3-7 membered heterocylic ring having 1-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur, or a 5-6 membered monocyclic heteroaryl ring having 1-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur; each of which is optionally substituted; or

two R groups on the same atom are taken together with the atom to which they are attached to form a C_{3-10} aryl, a 3-8 membered saturated or partially unsaturated carbocyclic ring, a 3-7 membered heterocylic ring having 1-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur, or a 5-6 membered monocyclic heteroaryl ring having 1-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur; each of which is optionally substituted;

each R^1 is independently -R, halogen, -OR, -SR, -CN, $-NO_2$, $-SO_2R$, -SOR, -C(O)R, $-CO_2R$, $-C(O)N(R)_2$, -NRC(O)R, $-NRC(O)N(R)_2$, $-NRSO_2R$, or $-N(R)_2$;

R^2 is -R, halogen, -OR, -SR, -CN, $-NO_2$, $-SO_2R$, -SOR, -C(O)R, $-CO_2R$, $-C(O)N(R)_2$, -NRC(O)R, $-NRC(O)N(R)_2$, $-NRSO_2R$, or $-N(R)_2$;

R^4 is -R, halogen, -OR, -SR, -CN, $-NO_2$, $-SO_2R$, -SOR, -C(O)R, $-CO_2R$, $-C(O)N(R)_2$, -NRC(O)R, $-NRC(O)N(R)_2$, $-NRSO_2R$, or $-N(R)_2$;

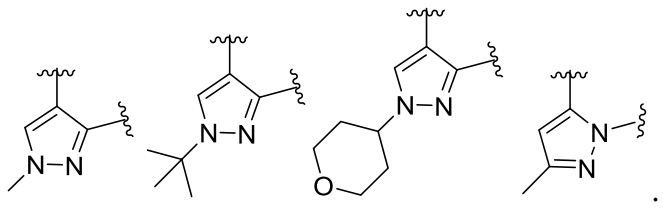
each m is independently 1 or 2; and

n is 0, 1, 2, 3, 4, or 5.

2. The compound of claim 1, wherein ring A is furanyl, furazanyl, imidazolidinyl, imidazolinyl, imidazolyl, isothiazolyl, isoxazolyl, oxadiazolyl, 1,2,3-oxadiazolyl, 1,2,4-oxadiazolyl; 1,2,5-oxadiazolyl, 1,3,4-oxadiazolyl, oxazolidinyl, oxazolyl, oxazolidinyl, pyrimidinyl, pyranyl, pyrazinyl, pyrazolidinyl, pyrazolinyl, pyrazolyl, pyridazinyl, pyridinyl, pyrimidinyl, pyrrolidinyl, pyrrolinyl, 2*H*-pyrrolyl, pyrrolyl, thiazolyl, thienyl, thienothiazolyl, thienooxazolyl, thienoimidazolyl, thiophenyl, triazinyl, 1,2,3-triazolyl, 1,2,4-triazolyl, 1,2,5-triazolyl, or 1,3,4-triazolyl; each of which is optionally substituted.

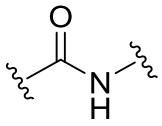
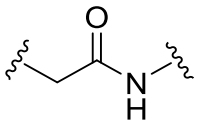
3. The compound of claim 2, wherein ring A is pyrazolyl; which is optionally substituted.

4. The compound of claim 3, wherein Ring A is selected from



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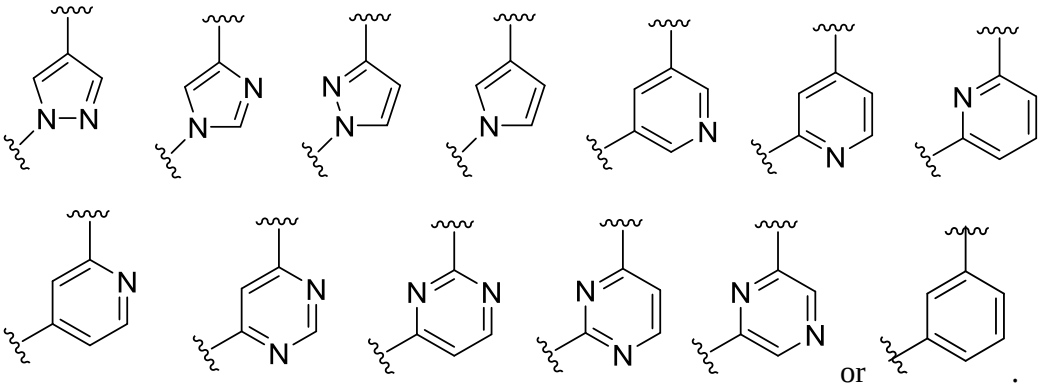
5. The compound of claim 1, wherein X is absent, -C(O)N(R)-, or $-(CRR)_mC(O)N(R)-$, wherein m is 1.

6. The compound of claim 5, wherein X is  or .

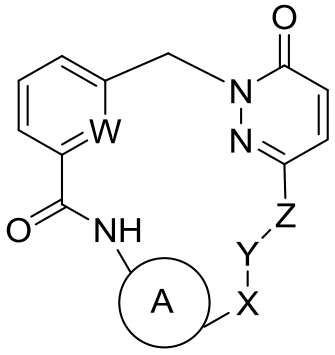
7. The compound of claim 1, wherein Y is methylene, ethylene, propylene, i-propylene, n-butylene, or s-butylene; each of which is optionally substituted.

8. The compound of claim 1, wherein Z is -O- a divalent C_{3-10} aryl, a divalent 3-7 membered heterocylic ring having 1-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur, or a divalent 5-6 membered monocyclic heteroaryl ring having 1-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur; each of which is optionally substituted -O-.

9. The compound of claim 8, wherein Z is -O-,

 or .

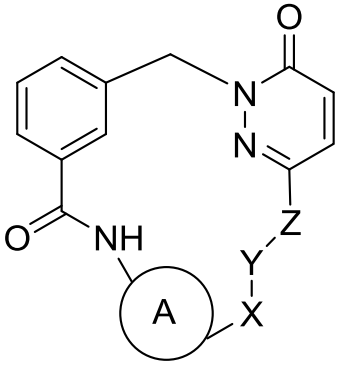
10. The compound of claim 1, of formula **I-a**,



I-a;

or a pharmaceutically acceptable salt thereof.

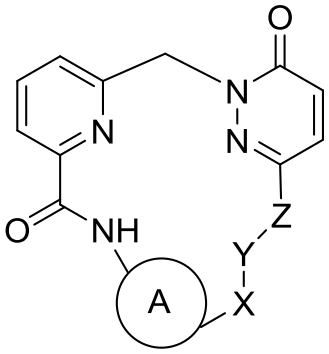
11. The compound of claim 1, of formula **I-b**,



I-b;

or a pharmaceutically acceptable salt thereof.

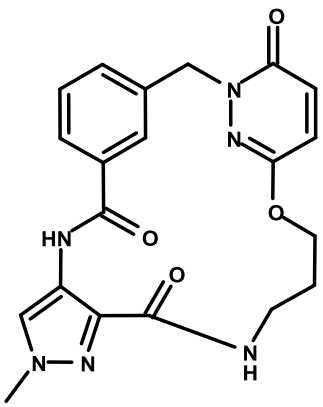
12. The compound of claim 1, of formula **I-c**,



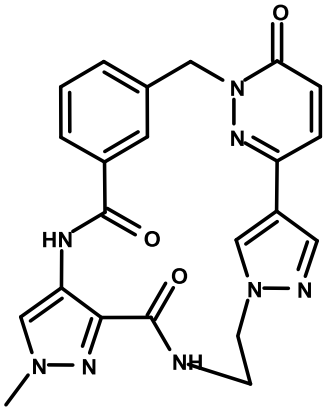
I-c;

or a pharmaceutically acceptable salt thereof.

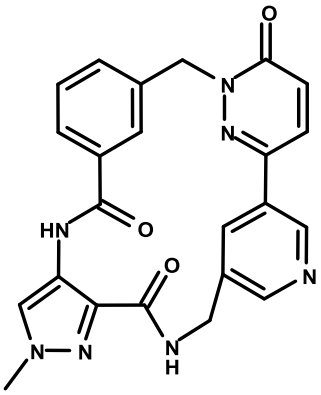
13. The compound of claim 1, selected from the group consisting of:



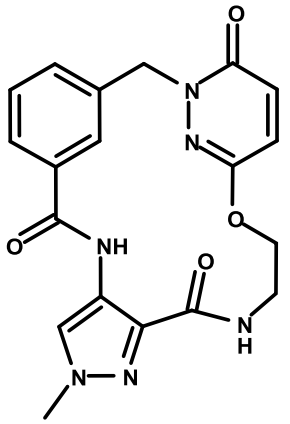
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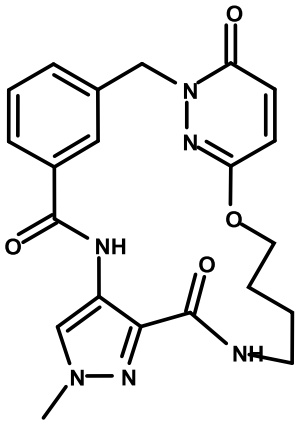
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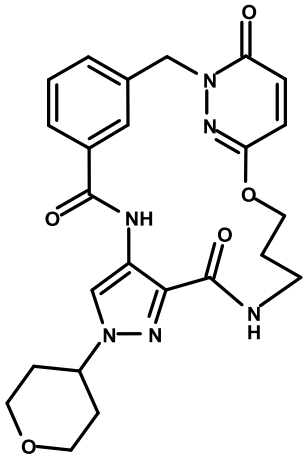
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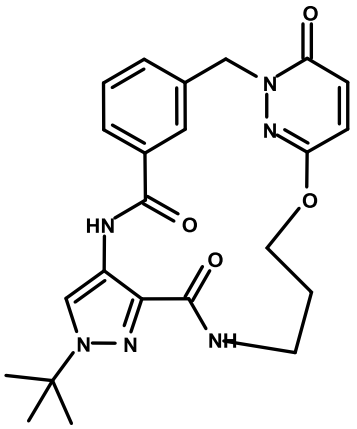
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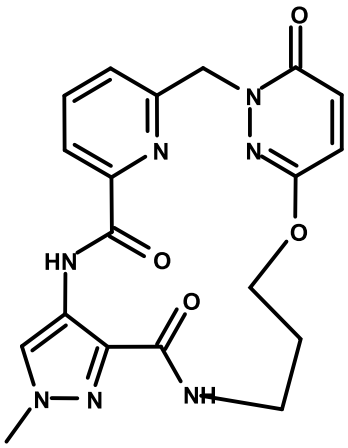
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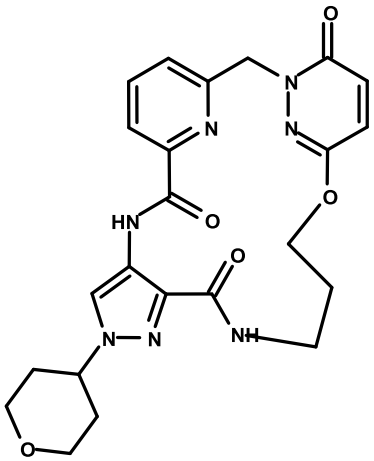
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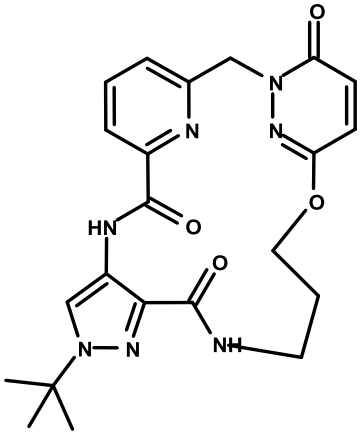
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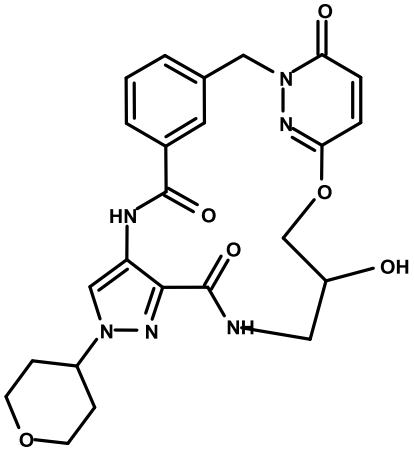
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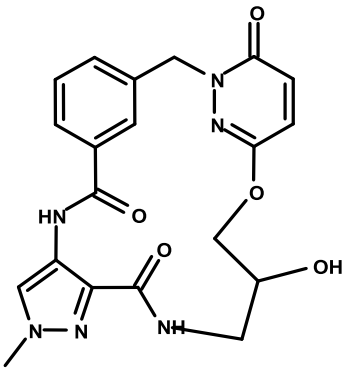
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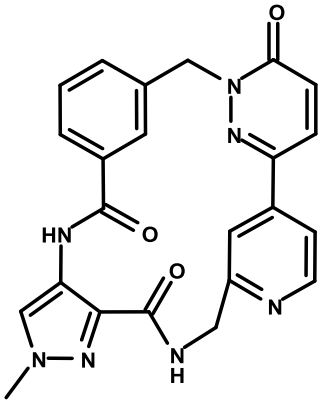
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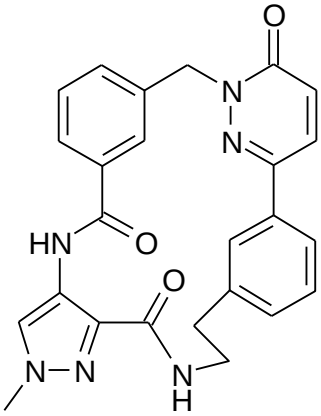
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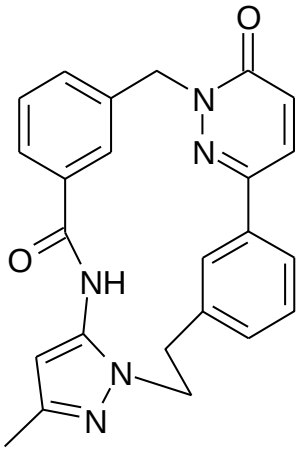
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13



14



15

14. A pharmaceutical composition comprising a compound of claim 1, and a pharmaceutically acceptable adjuvant, carrier, or vehicle.